

S P E C I F I C A T I O N

SYSTEM AND METHOD FOR INTERACTIVE TRANSLATION

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FIELD OF THE INVENTION

The present invention pertains to the field of language translation. More specifically, the present invention relates to an interactive language translation system and method used through the internet.

BACKGROUND

An interactive language learning program, via, e.g., the internet, that can reach a large number of users in varied locations, and which allows the users to work on their own schedule and at their own pace can stimulate language learning in a variety of locations not accessible or successfully accessed by other, static, language learning programs.

A useful component of an interactive language learning program is a convenient and accurate translation means or program that can provide a user translations for a variety of materials both inside and outside the language learning course materials. In this manner, a translation program can be used to supplement the user's language learning experience.

Probably the best known translation system is the various hardcopy language translation dictionaries. However, these dictionaries have drawbacks that render them generally unsuitable for effective language learning. They are not interactive, and thus users often find them dry and difficult to deal with. These inherent traits can translate
5 into a user's dissatisfaction with the language learning experience in total, and ultimately defeat the program's goal to stimulate and encourage language learning. Too, hardcopy translation dictionaries may be difficult to procure, or the copies that are available may not be current. Again, these problems can manifest in a user's overall dissatisfaction with the underlying language instruction.

10 There are also known web-based translation programs that currently exist, yet each of these known programs also have characteristics that make them unsatisfactory for interactive language learning instruction. First, many of the known translation programs translate an entire target web page. These translations are often inaccurate because they provide literal translations without regard for sentence structure or
15 context. Also, by providing a translation of an entire web page, these programs are counterproductive to language learning. Language instruction is most successful when it is interactive, and when the student is stimulated to put forth the effort to learn. One component of language learning is reading comprehension. Yet, when a student is able to receive an entire translation of any particular web page on the internet, he/she
20 will not derive any motivation to try and translate on their own. Thus, by using currently available translation programs on the internet, the language student loses opportunities to become more proficient at reading and learning the second language.

Also, many of the known web-based translation programs are difficult to use, especially when a user/student opens and closes web pages while he/she is browsing the internet. In particular, with the known translation programs hosted on the internet, the user/student can only see either the original web page, or the translated web page provided by the translation program. [The user can try and adjust the position and size of the two pages on their screen to view them simultaneously, but this is inconvenient at best, and can be a cumbersome or even difficult task for many novice users.] Moreover, each time the user wishes to view and translate a new web page, they will be required to once again position and size the new web page and the translation page if they want to view, and thus compare, both simultaneously. Too, with known web-based translation programs, the user must separately open and close the translation program page in order to translate various different web pages, and thus, must keep track of both the web site of interest, and the web page hosting the translation program.

Therefore, there is a need for a language translation program offered through the internet that overcomes these limitations and is appropriate for a language learning context.

SUMMARY

The present invention relates to an interactive language translation program. An objective of the present invention is to provide an interactive and convenient system and method for translating information identified by a user/student while the user/student browses various web pages on the internet.

In an embodiment of the present invention, a system for language translation comprises a translation window that is created by a program in a primary web page and is opened in conjunction with a web page window containing a secondary web page. The translation window and the web page window are positioned and sized so that the translation window and the web page window fit on the user's screen simultaneously, without overlapping. The system includes a translator that is linked to a translation dictionary database. The translation window comprises an input field for a user to provide information in a first language, and an output field comprising information in a second language corresponding to the translation of the information in the first language.

In another embodiment of the present invention, a method of language translation comprises providing a translation window that is executed by a program in a primary web page that is opened in conjunction with a web page window. The translation window and web page window are adjusted in size and position to allow both to be simultaneously viewed on a user's screen, without any overlap. This method further comprises receiving input information in a first language, translating the information from the first language to a second language, and outputting the information in the second language.

BRIEF DESCRIPTION OF THE ACCOMPANYING DRAWINGS

FIG. 1 depicts a subject board on a home web page;

FIG. 2 depicts a language choice window;

FIG. 3 depicts a translation program web page;

5 FIG. 4 depicts a translation window adjacent to a web page window containing a secondary web page;

FIGs. 5A and 5B depict javascript code for opening a translation window;

FIG. 6 depicts a translation window with a translation output adjacent to a web
page window;

FIG. 7 depicts a translation window with a translation output adjacent to a web
page window containing a tertiary web page; and

FIGs. 8A, 8B and 8C depict javascript code for creating a server query, and
opening a web page window on a user's screen.

DETAILED DESCRIPTION OF THE DRAWINGS

In the following description, for purposes of explanation, numerous specific
details are set forth in order to provide a thorough understanding of the present
invention. It will be apparent, however, to one skilled in the art, that the present
invention may be practiced without these specific details. In other instances, well-
20 known structures and devices are shown and/or described in a generic form in order to
avoid unnecessarily obscuring the present invention.

A user of the interactive translation application or program uses a computer, or other similar device. In an embodiment, the computer or other device is capable of accessing the internet, or world-wide-web. The user views the various web pages, or screens, of the program, on a display, or screen, connected to, or otherwise associated with, the device used to access the internet. The user interacts with the translation program by inputting information to the program via a keyboard, mouse, touch pad and/or other device(s) capable of inputting characters and clicking on, or otherwise choosing, buttons, boxes, menus and web pages on their display.

The system and method of the present invention are practiced by accessing a primary web page. This web page may include an index or subject board that lists various links to offered programs and services. An example subject board 100, depicted in Figure 1, shows a Resources heading 105 and a link 110 to a translation program, e.g., the "Traveling Translator™". A user may use the translation program by clicking on, or otherwise selecting, link 110.

After selecting link 110, a user can be prompted to select a translation language. An exemplary language choice window 200, depicted in Figure 2, provides the user with a choice of a number of translation languages 205. The user may choose any of the designated languages by selecting the appropriate button 210 next to the language 205 in the language choice window 200. After choosing the desired translation language 205, the user clicks on the "OK" button 220 and accesses the translation program web page. Alternatively, if the user wishes to exit the language choice window

without accessing the translation program web page, he/she may click on the "Cancel" button 225.

In another embodiment, the translation program is accessed via an on-line language learning instruction course, and the translation language for the translation program automatically defaults to the language learning user's native language, which he/she designated at some earlier time in accessing the instruction materials. In this embodiment, when the user clicks on link 110 of Figure 1, the translation program web page is immediately accessed.

5 An exemplary translation program web page 320, shown in Figure 3, provides instructions 315 that describe how the user is to use the translation program in conjunction with web sites hosted on the internet. In order for the user to use the translation program while accessing various web sites, the user types a URL 305 of a desired web page in text box 300. For example, the user may type `http://yahoo.com`, as indicated in text box 300. To then use the translation program with the web page at yahoo.com, the user clicks on the "GO" button 310.

As shown in Figure 4, a translation window 400 is created by a program hosted by the primary web page, and is opened in conjunction with a web page window 420 containing the secondary web page 450 selected by the user in text box 300 of Figure 3. The translation window 400 and the web page window 420 are automatically sized and positioned so that they simultaneously fit on one user visible screen without overlapping. Through this process, the user is able to view the secondary web page

450 while having access to the translation window 400, without having to make any adjustments in the size or position of either.

An embodiment javascript code 510 for opening a translation window 400 is shown in Figures 5A and 5B. The javascript code 510 also first checks 520 to see if a translation language has been previously selected by the user. If not, an "alert" message is displayed to the user 530, indicating that the user should first choose a translation language. The javascript code 510 further checks 540 to see if the user has indicated a valid URL, by checking the length of the URL input into text box 300. If no URL was input, or it is deemed invalid, the javascript code 510 causes an "alert" message to be displayed to the user 550, indicating that the user should enter a valid URL into text box 300.

Referring again to Figure 4, in an embodiment, the translation window 400 includes an input field 405, a translation direction field 410, a "Translate" button 415 and an output field 430. In an embodiment, the user may type a word or phrase to be translated into the input field 405. The word or phrase is generally expected to come from the secondary web page 450 displayed with the translation window 400, but there is no constraint or requirement for this.

In other embodiments, the user may drag-and-drop or right click a word or phrase from the secondary web page 450 to transfer the word or phrase to the input field 405. For example, as shown in Figure 4, a user may right click on a first target word 425 (e.g., "Mail"). In this manner, the word "Mail" will be input to input field 405.

To enhance the flexibility of the translation program, in an embodiment, the translator will accept one or more search modifiers such as, but not limited to, "exact match," "contains" and "starts with". Thus, the user can either translate specific words ("exact match") or key off of words in the secondary web page 450, or elsewhere, to learn the translations for related words ("contains" or "starts with" options).

In an embodiment, the input field 405 will only accept a word or a short phrase (e.g., less than five words). In another embodiment, the input field 405 will only accept one word at a time. In these embodiments, the user is precluded from systematically relying on the translation system to the detriment of exerting his/her own efforts to master a new language. Thus, by limiting the amount of material that a user can translate at once, the user is provided immediate support for language learning difficulties while also encouraged to achieve greater reading comprehension skills in the language they are working to learn.

In an embodiment, the translation direction field 410 provides two options to the user. The user can either translate from English to their translation language, or alternatively, from their translation language to English. In the exemplary translation direction field 410 of Figure 4, the user has selected option 435 that is "English to Spanish;" i.e., the user has chosen to translate from English to their translation language, Spanish. Thus, the user would input an English word or phrase in the input field 405, and receive back the Spanish translation in the output field 430. Alternatively, if the user had chosen the option "Spanish to English," the user would input a Spanish

word or phrase in the input field 405 and receive back the English translation in the output field 430.

After placing a word or phrase in input field 405, the user clicks on the "Translate" button 415. The translator, which is linked to a translation dictionary database accessible through the internet, provides a translation 505 of the target word or phrase 425 in the input field 405 to the user, in the output field 430, as shown in Figure 6. In an embodiment, the translation 505 comprises one or more dictionary definitions of the target word 425. In an embodiment, the translation 505 includes all the various meanings for all the forms, i.e., verb, noun, adjective, adverb, etc., of the target word 425. As the correct meaning of a word is often dictated by its context of use, by providing the user the various dictionary definitions of the target word 425, the user is encouraged to learn and apply the appropriate definition of the target word 425 in the context from which it is currently derived.

An embodiment javascript code 650 for creating a server query, and opening a web page window on a user's screen is shown in Figures 8A, 8B and 8C.

In an embodiment, if the user moves from the secondary web page 450 to a third, or tertiary, web page, by typing a second URL in the address box 440 of the secondary web page 450, the tertiary web page is displayed on the user's screen such that both the tertiary web page and the translation window 400 are visible with no overlapping. As seen in Figure 7, web page window 420 containing tertiary web page 600 for the URL [http:// www.mapsonus.com](http://www.mapsonus.com) 605, is shown next to translation window

400. The user may input another target word 615 (e.g., "register") to the input field 405 of the translation window 400, and obtain a translation definition 610 in output field 430.

A user can continue to input words or phrases into the translation window, always with the ability to select for any translation to translate from English to their translation language or from their translation language to English. The user may also continue to access new web pages in conjunction with the translator window, viewable on the same user screen with no overlap, by writing the URL of the desired web page in the address box of the current web page displayed on their screen.

Thus, in an embodiment, the system and method for language translation provides the user with translation capabilities for each web page as he/she "browses" the internet until the user closes or reduces the translation window 400. This translation language system and method facilitates language learning as it is useful and convenient. Yet this language learning system and method encourages language learning by requiring the user to determine the correct definition of any particular word or phrase as dictated by the context in which the word or phrase is currently being used.